

Grab, Grasp, Squeeze, and Pinch Getting Ready for Writing

Milestones and Activities

3 years to 4 years old

I. Whole-Hand Grasp

1. uses 2 hands to pour from a pitcher to a glass
 - Pouring
 1. pitcher to pitcher:
 - dry materials : beans, popcorn, buttons, macaroni
 2. pitcher to a jar or glass (water)
 - when mastered, add a funnel - graduate funnels from large to small (draw one or two lines inside the funnel to help with focus and to control spilling)
2. feeds self without spills
 - scoop (with ice cream scoop) beans, macaroni, popcorn and non-food items: buttons, beads, small rocks from one container to another
 - cut bread or clay with plastic knife
3. makes rolled ropes and balls or flat cakes with clay
4. sifts corn meal with a crank or squeeze sifter
5. squeezes sponge to transfer water from one bowl to another
6. scrubs rocks or seashells with a nail brush or toothbrush
7. beats bubbles with wire whisk (do not use a rotary egg beater at this time)

II. Pinch (Grasps with fingers and thumb)

1. anticipates grasp by aligning fingers before picking up cubes from table -- begins to release grasp
 - builds with 1" cubes
 1. build block tower of 9-10 blocks (hand obstructs view of building)
 2. builds a 3-block bridge -- but forces or pats pieces in place, then uses two hands to steady or release blocks
 3. sorts blocks by color
 4. strings large wooden beads -- copies a model made of beads, then copies a pattern drawn on paper
 5. unbuttons, has difficulty buttoning
 6. cuts with scissors within 1/2" of a straight line

III. Pincer Grasp

1. attempts to simulate adult grip by increased use of fingers
 - traces within 1/4" of 4" vertical line (greatest increase in tracing accuracy ages 3-4)
 - draws a circle - may draw an arc or spiral to represent a circle
 - does not predict what he/she will draw or is drawing - will tell you about drawing later in process
 - scribble stage of writing; may attempt writing letters in own name

4 years to 5 years old

I. Whole-Hand Grasp (improved "release" grasp)

1. uses a single hole-puncher
 - random punching on light weight paper
 - begins to punch on a drawn, straight line (to see drawn line, remove paper catcher from back of hole puncher)
2. squeezes plastic baster
 - color mixing -- mixes single colors of water to make new color by filling baster or eye dropper and transferring water (using release grasp) to new container
3. picks up balls, nuts, and blocks with tongs
 - tongs range from large to small, squeeze to scissors handle; from meatball shaper to curved and flat ends
4. beats bubbles with rotary egg beater

II. Pinch (Grasps with fingers and thumb)

often substitutes medius finger for index finger, applying index finger for manipulation of material

1. builds with 1" blocks
 - builds block tower, or bridge, holding hand to the side so as not to obstruct view
 - uses two hands independently in building
 - builds block tower using tongs to manipulate blocks
2. can button and unbutton clothing
3. rolls socks (index and medius finger opposite thumb)
4. makes cube designs with 1" cubes
 - copies designs printed on cards
 - creates own designs
 - around age 5 can begin to copy/color his own design on paper (a template helps child align blocks in drawing)
5. lacing cards -- stitches overlap, first, then "sews" with over/under stitches
6. brass or plastic pipes and fittings - seriation large to small,
7. locks and keys - match large to small before pinching key to unlock
8. standard clothespins --clips on a bowl or to cardboard drawn lines
9. cuts a 2" triangle or square within 1/4" of drawn line (heavy paper)
10. clips large plastic paper clips on cardboard (add guide lines after some degree of mastery without lines)
11. peg board designs
 - copies design as printed on cards
 - creates design with a variety of colored pegs (if pegs are too small, use golf tees and a commercial peg board)
12. geoboard designs: copies design using multi-color rubber bands
 - age 5, creates and copies a design with markers and a template
13. strings beads
 - according to printed design
 - creates a design, draw/color it, then have someone else copy it by stringing some more beads; check by comparing two strands
14. sorts and assemble pairs of nuts and bolts (do not allow hand to "spin" bolt onto nut -- it needs to be pinched and turned)
15. tweezers - hierarchy of difficulty in use:
 - "strawberry huller" with a thumb holder
 - "strawberry huller" without a thumb holder

- twissors (tweezers with scissors handle)
- standard tweezers
 - sorts buttons by color or size into small compartments of muffin pan
 - drops small beads in a cup
 - places small beads on soap pad (suction type)
- 16. folds, creases paper with fingers (horizontal and vertical folds)
- 17. shells peanuts (including removing "paper/skin")
- 18. color mixing
 - put drops of two food colors in water, leave third compartment empty transfer water into third compartment using a plastic baster, then eye dropper (makes third color)
 - drops colors of two or three food colors, in water, onto soap pad; blot with

III. Pincer Grasp on writing stylus

grips with three radial digits near the point with medius extended more fully than other fingers - paper held in place by non-writing hand, writing is usually small and cramped

1. pencil and paper activities
 - traces 4" horizontal line within 1/4" of the line
 - copies teacher's model of circle, vertical, and horizontal lines, cross and square
 - has difficulty drawing diagonal lines (triangle)
 - draws circle with ends joined, but may have oval shape
 - in "free" drawing, may change description (destination) to fit the drawing
 - draws a person with 2 - 3 recognizable body parts
 - begins to "draw" letters (upper case block print)
 - (this is not the same as "writing" letters -- do not begin this task until the child asks for information / help)
2. Writing letters if a child asks to write letters,
 - begins by tracing a large model made by the teacher on unlined newsprint (see your kindergarten teacher for the correct way to form the letters, and encourage child to follow your model by using directional arrows)
 - uses Changeable (color) markers or china (grease) pencils to trace model
 - traces over letters on poster board with colored glue - allow to dry, then "feel" (trace) with eyes closed

5 years to 6 years old

Use "Exer-Flex" or "Power Putty" to warm-up and relax hands before writing

I. Pincer Grasp

1. picks up item with prehensile grip while tucking two ulnar fingers into palm, like an adult, thus enabling child to see item
 - winds thread or yarn on bobbin
 - makes small ball of tissue paper
 - begins to tie a bow
2. improved speed, dexterity and precision in placement of objects, expert release and alignment in building with blocks
 1. builds block tower
 - holds cubes by upper right hand corner to allow complete view of cube and tower
 - may hold two cubes at a time (one in palm, one in fingers)
 2. corks and tweezers (float small corks in a large bowl of water, remove with strawberry huller or tweezers)
3. folds paper diagonally, and creases it
4. cuts 6" circle within 1/4" of line

5. uses a knife for spreading (peanut butter or mayonnaise)
6. miniature clothespins: clips on marked poster board
7. makes a paper clip chain with large paper clips (easier to connect than disconnect)

II. Pincer Grasp with writing stylus

adept at gripping pencil

1. traces inside and outside wooden or metal template
 - connects dots between sides of shape (start and stop marks)
 - colors within lines
2. marks on paper are confined to a small area
3. copies square and triangle
4. traces diamond without error
5. draws circle (may have one side flat side)
6. names drawing in advance of producing it - evaluates and criticizes own painting
7. draws a person with 4 - 6 distinct parts
8. begins to write upper and lower case letters, reversals are common and should not be a cause for concern at this point in development
9. traces and/or draws slanted lines and circles between lines of wide ruled tablet - use a china marker/grease pencil for most tactile-kinesthetic reinforcement
 - color code "start and stop" lines with red and green (mid-line with yellow)
10. traces upper or lower case letters on wide ruled tablet paper with Changeable markers
11. prints first, and sometimes, last name (may include reversals)

Sources for developmentally appropriate behaviors:

Brigance, Albert. Inventory of Early Development , 1978

Gesell, Arnold. The First Five Years of Life, 1940

*activity suggested by Lana Stripling